

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028269**Date Inspected:** 22-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Salvador Merino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QAI observed ABF/JV qualified welder Guo Wu Chen #1556 performing Carbon Arc Gouging (CAG) for the repair of the deck panel drop-in splices designated as 13E-E2.5 and 13E-E2.8. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavations at the following locations,

Weld 13E-E2.5

Y=3685 Depth 13, Width 15mm, Length 95mm

Y=1030 Depth 7, Width 20mm, Length 140mm

Weld 13E-E2.8

Y=6440

The ABF welder Guo Wu Chen was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair at the locations previously noted. The weld and surrounding area was brought to a temperature of 325°F by the use of inductions heaters and maintained throughout the welding process. Due to the first time repair of the noted locations for weld 13E-E2.5 approval of the engineer is not required. The repairs at Y=6440 for weld 13E-E2.8

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were performed in accordance with approval for repair document RWR201208-073 due to the second time repair at this location.

Ultrasonic Testing (OBG 13E)

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) deck panel drop-in weld connections for lift 13E. The weld were previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

Lift 13E Transverse deck splice (Weld No. 13E-PP122.2)

The QAI performed a minimum of 10% random verification of this weld. A total of two (2) rejectable indications were observed by the QAI at the time of inspection. All indications found were confirmed by ABF QC inspector Jesse Cayabyab during this shift. The rejectable indications observed by the QAI on this date were found in way of recordable indications previously marked by ABF QC ultrasonic testing inspectors. The ABF QC inspector Salvador Merino stated his opinion that adjacent repairs performed with a post weld heat treatment of 450°F, may have changed the recordable indication db rating to rejectable. The QC Lead Bonifacio Daquinag Jr. then informed the QAI that the weld would be re-inspected ultrasonically by QC from Y=0~Y=5000 due to the amount of recordable indications present in this weld splice.

The QA inspector observed at random intervals; ABF/JV qualified welder Wai Kitlai #2953 continuing to perform Shielded Metal Arc Welding (SMAW) in the 3G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1002-Repair for the repair of the HPS-485 longitudinal deck stiffener splice at panel point 120.6. The weld is designated as 13E-PP120.6-LS2. The weld surface and surrounding area was brought to temperature by the use of induction heaters. The ABF QC inspector Salvador Merino was observed monitoring the welding parameters at the beginning of the shift.

The QAI was notified by ABF/JV QC inspector Salvador Merino that the lifting lug removal areas on the E3 longitudinal diaphragm south side at panel point 122.65 were completed and ready for QA verification in way of repairs to linear indications discovered on the previous shift. The QAI performed magnetic particle testing in way of the repair locations only and observed no indications at the time of inspection. The QA visual inspection at the lifting lug removal area was then performed at this location and measurements taken on the required 3/1 slope of the removal area appeared to comply with ABF-RFI-001151R00

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

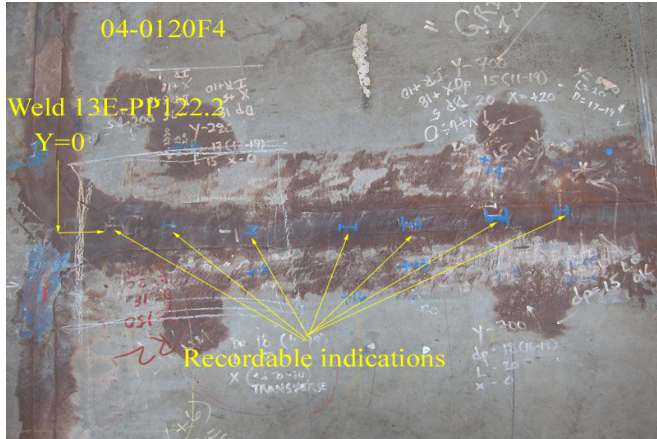
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Patterson,Rodney

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer